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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,442	04/21/2005	Trent Michael Victor Kaiser	THAS125168	3904

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EXAMINER	
DAVIS, MARY ALICE	
ART UNIT	**PAPER NUMBER**
3748	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/532,442	KAISER ET AL.	
	Examiner	Art Unit	
	Mary A. Davis	3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,8,10-13 and 19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *8,10 and 19* is/are allowed.

6)☒ Claim(s) *1-3 and 11-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 August 2007* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Receipt and entry of Applicants' Amendment filed on 2 August 2007 is acknowledged. Currently claims 1-3, 8, 10-13, and 19 are pending in this application.

Drawings

2. The drawings are objected to because the symbols that are used to indicate various materials do not follow the symbol conventions in MPEP 608.02 (Pages 600-113 and 600-114). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The Examiner appreciates the applicant's revision and comments on the reasoning for the generic hash marks. However, since the applicant claims an elastomer coating, the elastomer coating layer should utilize the proper material identification in the drawings.

3. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required

corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

4. Claim 1 is objected to because of the following informalities: when introducing a new feature, that feature should have no preceding article or - - a - - before it. If a feature is already introduced, the feature should have either - - said - - or - - the - - before it. Claim 1, line 4 should be - - a rotor - -.

Appropriate correction is required.

Claim Rejections - 35 USC § 102/103

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-3 and 12-13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over FORREST (U.S. Patent 5,171,138).

Regarding claims 1 and 13, FORREST discloses:

- A Moineau stator, comprising:

- a thick-walled tube (16) having a thickness such that the stator structure is able to resist pressure, torque, and axial loads experienced in its intended operating environment (Column 3, lines 5-10), lobes (see Figures 1 and 3-4 which shows that the tube has lobes) arranged in a configuration which is adapted to interact with a rotor (20) (Column 3, lines 16 – 23) and formed through a hydroforming process (the process used to form the tube is not disclosed by FORREST. FORREST discloses that the tube comprises of metal material, but is silent as to the method of forming. The claimed phrase "formed through a hydroforming process" is being treated as a product by process limitation; that is, that the tube is made by a hydroforming process. As set forth in MPEP 2113, product by process claims are NOT limited to the manipulations of the recited steps, only to the structure implied by the steps. Once a product appearing to be substantially the same or similar is found, a 35 U.S.C. 102/103 rejection may be made and the burden is shifted to applicant to show an unobvious difference. See MPEP 2113. Thus, even though FORREST is silent as to the process used to form the tube, it appears that the product in FORREST would be the same or similar as that claimed; especially since both applicant's product and the prior art product is made of a metallic material (see Column 3, lines 5-7)).

Regarding claim 2, FORREST discloses:

- the tube has an elastomer coated interior (24) adapted to form a liquid seal with the rotor (Column 3, lines 29-32).

Regarding claim 3, FORREST discloses:

- the elastomer is of uniform thickness (Column 3, lines 29-32).

Regarding claim 12, FORREST discloses:

- there is an unequal preferential circumferential distribution of elastomer coating at intervals along the interior circumference of the tube (Column 3, lines 32 – 37; even though FORREST prefers using a uniform elastomer coating over a non-uniform coating, it would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have utilized a non-uniform coating, since this was a known configuration in the prior art of FORREST).

Claim Rejections - 35 USC § 103

8. In the alternative, Claims 1-3 and 12-13 are rejected 35 U.S.C. 103(a) as being unpatentable over FORREST in view of either one of the following: MARANDO (U.S. Patent 5,927,120), or BIRD ET AL (Hydroforming Applications at Oak Ridge, March 15, 1999; For Presentation at the Society of Manufacturing Engineers, March, 1999).

FORREST discloses the claimed invention as discussed above, however, fails to disclose how the tube is manufactured, specifically using a hydroforming process. MARANDO and BIRD ET AL both disclose forming thick-walled tubes using a hydroforming process (Abstract of MARANDO; Page 1, ¶2 of BIRD ET AL). Furthermore, the hydroforming process involves placing the tube into a hydroforming fixture (see Figures 2-4, Column 10, line 63 – Column 11, line 12 of MARANDO; see Figures 1- 3, Page 1, ¶2 – Page 2, ¶1 of BIRD ET AL) to form the lobes that interact with the rotors (as discussed above).

It would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have formed the thick-walled tube by a hydroforming process in FORREST, since the method of manufacturing thick-walled tubes by the hydroforming process is well known (see MARANDO and BIRD ET AL).

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the modified tube of FORREST as applied to claim 2 above, and further in view of JAGER '358 (U.S. Patent 6,293,358 B1).

FORREST discloses the claimed invention as discussed above, but fails to disclose an unequal preferential axial distribution of the elastomer coating at intervals along the length of the tube.

Regarding claim 11, JAGER '358 teaches:

- an unequal preferential axial distribution of elastomer coating (3) at intervals along the length of the tube (2) (see Figure 1 that appears to show that there is an unequal distribution of elastomer coating along the length of the tube where there appears to be more coating in the convex areas versus the concave. Since a single figure appears to show the necessary unequal amounts of coating on the tubes, it is deemed inherent, absent evidence to the contrary, that the coating is indeed unequal along the length of the tube. Furthermore, JAGER '358 inherently has an unequal amount of coating over the length of the tube. It is inherent, since JAGER '358 does not disclose any special methods to form an even elastomer coating over the tube. See JAGER '787 (U.S. Patent 6,427,787) which teaches that it is common to have unequal thicknesses of the elastomer

coating along the length of the tube (Column 1, lines16-25), and that only by special features is the coating able to be made to be uniform).

It would have been obvious to a person having ordinary skill in the art at the time of the invention was made to have an unequal axial distribution of elastomer coating on the tube of FORREST, since having an unequal axial distribution of elastomer coating is an obvious design configuration that was known in the prior art (see JAGER '358 and JAGER '787).

Allowable Subject Matter

10. Claims 8, 10, and 19 are allowed.

Response to Arguments

11. Applicant's arguments with respect to claims 1-3 and 11-13 have been considered but are moot in view of the new ground(s) of rejection.

12. Applicant's arguments, see Page 8, line 14 – Page 10, line 6, filed 2 August 2007, with respect to claim 10 have been fully considered and are persuasive. The rejection of claim 10 has been withdrawn.

13. Applicant argues the thick-walled tube being formed through a hydroforming process. The arguments over the method of producing the part in an apparatus claim are not persuasive. Since as set forth in MPEP 2113, product by process claims are NOT limited to the manipulations of the recited steps, only to **the structure** (emphasis added) implied by the steps. Once a product appearing to be substantially the same or similar is found, a 35 U.S.C. 102/103 rejection may be made and the burden is shifted to applicant to show an unobvious difference. See MPEP 2113. Applicant's arguments

to independent claim 1 are solely based on the method of manufacturing a thick-walled tube by hydroforming. The Examiner has provided additional references that utilize the hydroforming process on thick walled tubes (see rejection above); in order to show that hydroforming thick walled tubes are well known in the prior art.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

15. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary A. Davis whose telephone number is (571) 272-9965. The examiner can normally be reached on Monday thru Friday; (Second Friday off) 7am - 3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mary A. Davis

MAD

10/9/07

/Mary A. Davis/

Patent Examiner Art Unit: 3748

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